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     (FILE 'HOME' ENTERED AT 15:56:55 ON 23 NOV 2004)

     FILE 'BIOSIS, MEDLINE, CAPLUS' ENTERED AT 15:57:13 ON 23 NOV 2004
L1            28 S CONSTITUTIVELY AND ACTIVATED AND RECEPTOR AND TECHNOLOGY
L2             2 S L1 AND ORPHAN RECEPTOR

     FILE 'STNGUIDE' ENTERED AT 15:59:23 ON 23 NOV 2004
L3             0 S ORPHAN RECEPTORS AND CART ASSAY

     FILE 'BIOSIS, MEDLINE, CAPLUS' ENTERED AT 16:02:46 ON 23 NOV 2004
L4             0 S ORPHAN RECEPTORS AND CART
L5       2134644 S RECEPTOR
L6          7893 S L5 AND ORPHAN
L7             3 S L6 AND CART
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L7 ANSWER 1 OF 3 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI Filling the interstices: Ghrelin neurons plug several holes in regulation of energy balance.
PY 2003
SO Neuron, (February 20 2003) Vol. 37, No. 4, pp. 550-553. print.
ISSN: 0896-6273 (ISSN print).

L7 ANSWER 2 OF 3 BIOSIS COPYRIGHT (c) 2004 The Thomson Corporation. on STN
TI The **orphan** G-protein-coupled **receptor** ARE113 is a novel **receptor** target for obesity.
PY 2000
SO Society for Neuroscience Abstracts, (2000) Vol. 26, No. 1-2, pp. Abstract No.-569.18. print.
Meeting Info.: 30th Annual Meeting of the Society of Neuroscience. New Orleans, LA, USA. November 04-09, 2000. Society for Neuroscience.
ISSN: 0190-5295.
AB **Orphan** GPCRs are cloned proteins with characteristics common to the GPCR superfamily but no identified natural ligand(s) and consequently no identified function(s). Here we report that the **orphan** GPCR ARE113 may play a role in metabolism in rats. In situ hybridization analysis demonstrated that GPCR ARE113 is expressed in the arcuate and the ventromedial nuclei, two hypothalamic regions involved in metabolic regulation. Double labeling studies in the arcuate nucleus indicated that 20% of GPCR ARE113 is co-localized with AGRP and NPY, two **receptors** with orexigenic functions. Expression of GPCR ARE113 was altered in food-deprived and genetically obese rats. Antisense oligonucleotides to GPCR ARE113 mRNA decreased body weight gain and feeding behavior in Sprague-Dawley rats. Using a ligand-independent assay (i.e. **CART**(R) technology), we have screened the ARE113 **receptor** against a small molecule chemical library and identified selective inverse agonists at GPCR ARE113. The lead in this chemical series, ARE113007, selectively decreased food intake and body weight gain after oral administration in food-deprived, free-fed, and diet-induced obese rats. ARE113007 also increased lipid utilization and reduced fat mass. Together, these data suggest that GPCR ARE113 may be a potential novel **receptor** target for the treatment of obesity. To our knowledge, this is the first discovery of a behaviorally active small molecule with specific inverse agonist activity at an **orphan** GPCR without prior identification of natural ligands at that **receptor**.

L7 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2004 ACS on STN
TI Informatics integration within the drug discovery pipeline at Arena Pharmaceuticals
PY 2001
SO Abstracts of Papers, 221st ACS National Meeting, San Diego, CA, United States, April 1-5, 2001 (2001) BTEC-038
CODEN: 69FZD4
AB Using Constitutively Activated **Receptor** Technol. (**CART**) Arena Pharmaceuticals is able to screen small mols. against **orphan** GPCRs. The drug discovery pipeline at Arena includes the identification of novel **orphan** GPCRs from the human genome; target validation; HTS and chemical lead expansion. Each of these areas requires considerable informatics support. Properly designed enterprise information systems can both meet this need and boost productivity by providing tools for decision support and real-time communication and feedback between the diverse groups of scientists (e.g. screening, mol.-biol., in-vivo pharmacol. and chemical). Arena has designed and constructed a database system with these criteria in mind: a web-based interface provides non-experts with easy access to all Arena's scientific data. Different paths into the data allow users appropriate access: chemists have access to screening data for their compds.; mol.-biologists

can view gene data and tissue distributions; the lab-scientist can quickly view the results of their experiment and managers can search for leads, generate reports and analyze data. Achieving this goal requires careful attention to users needs and the seamless integration of cheminformatics and bioinformatics.